

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-17. (Canceled)

18. (Currently Amended) A method of treating an in situ heart valve, the method comprising:

providing a first elongate member having a first end and a second end and an anchor assembly at each of the first and second ends;

anchoring the anchor assembly at the first end proximate the in situ heart valve such that at least a portion of the first elongate member between the first end and the second end extends within a chamber of the heart; and

anchoring the anchor assembly at the second end to a portion of the heart spaced from the valve ~~anchor assembly at the first end,~~

wherein anchoring the first and second ends of the first elongate member draws together leaflets of the in situ valve.

19. (Previously Presented) The method of claim 18, wherein the anchor assembly at the first end includes an annuloplasty ring.

20. (Previously Presented) The method of claim 19, wherein anchoring the anchor assembly at the first end includes anchoring the annuloplasty ring proximate an annulus of the valve.

21. (Previously Presented) The method of claim 20, wherein anchoring the annuloplasty ring includes suturing the annuloplasty ring to the annulus.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

22. (Previously Presented) The method of claim 18, wherein anchoring the anchor assembly at the second end includes anchoring the anchor assembly to one of a papillary muscle within the heart chamber and a heart wall surrounding the heart chamber.

23. (Previously Presented) The method of claim 18, wherein drawing together leaflets of the valve includes altering a position of at least one papillary muscle.

24. (Previously Presented) The method of claim 18, wherein drawing together leaflets of the valve includes altering a shape of an annulus of the valve.

25. (Previously Presented) The method of claim 24, wherein altering the shape of the annulus includes reducing a radius of curvature of at least a portion of the annulus.

26. (Previously Presented) The method of claim 18, wherein drawing together leaflets of the valve includes altering at least one of a transverse radius and a vertical dimension of the heart chamber.

27. (Previously Presented) The method of claim 18, wherein drawing the valve leaflets together includes closing the valve during at least a portion of the cardiac cycle.

28. (Previously Presented) The method of claim 18, wherein the valve is a mitral valve.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

29. (Previously Presented) The method of claim 18, wherein the heart chamber is the left ventricle.

30. (Previously Presented) The method of claim 18, further comprising:
providing a second elongate member having a first end and a second end and an anchor assembly at each of the first and second ends;

anchoring the anchor assembly at the first end of the second elongate member proximate the heart valve such that at least a portion of the second elongate member between the first end and the second end of the second elongate member extends within a chamber of the heart; and

anchoring the anchor assembly at the second end of the second elongate member to a portion of the heart substantially opposite to the second end of the first elongate member.

31-44. (Canceled)

45. (Currently Amended) A method for treating an in situ heart valve, comprising:

at least during systole, altering a geometry of a heart chamber at a location spaced from the in situ heart valve ~~at least during systole~~ so as to at least one of

alter at least a portion of an annulus of the in situ valve;

alter a position of at least one papillary muscle associated with the in situ valve;

and

draw together leaflets of the in situ valve.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

46. (Previously Presented) The method of claim 45, wherein altering the geometry of the chamber includes extending at least a portion of at least one elongate member within the chamber and anchoring an end of the at least one elongate member to one of a wall surrounding the heart chamber and a papillary muscle in the chamber.

47. (Previously Presented) The method of claim 46, wherein altering the geometry of the heart chamber further includes anchoring another end of the elongate member proximate the annulus of the valve.

48. (Previously Presented) The method of claim 46, wherein the at least one elongate member includes a tension member.

49. (Previously Presented) The method of claim 46, wherein the at least one elongate member includes a plurality of elongate members.

50. (Previously Presented) The method of claim 45, wherein the valve is a mitral valve.

51. (Previously Presented) The method of claim 45, wherein the heart chamber is the left ventricle.

52. (Previously Presented) The method of claim 45, wherein altering the geometry of the heart chamber includes drawing together leaflets of the valve so as to promote closure of the valve.

53. (Previously Presented) The method of claim 45, wherein altering the geometry of the heart chamber includes altering at least one of a transverse radial

dimension and vertical dimension of the heart chamber during at least a portion of the cardiac cycle.

54. (Previously Presented) The method of claim 53, wherein altering at least one of the transverse radial dimension and vertical dimension includes reducing at least one of the transverse radial dimension and vertical dimension.

55. (Previously Presented) The method of claim 45, wherein altering the position of at least one papillary muscle associated with the valve includes drawing the papillary muscle toward the valve.

56. (Previously Presented) The method of claim 45, wherein altering the geometry of the heart chamber includes positioning a device with respect to the heart such that a portion of the device contacts heart structure other than structure of the heart valve.

57. (Previously Presented) The method of claim 56, wherein the structure of the heart valve includes leaflets, chordae, an annulus, and papillary muscles.

58. (Previously Presented) A method of treating an in situ heart valve, the method comprising:

positioning a device with respect to a heart such that, at least during systole, a portion of the device contacts and alters a geometry of structure other than structure of the in situ heart valve so as to at least one of

alter at least a portion of an annulus of the in situ valve;

alter a position of at least one papillary muscle associated with the in situ valve;

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

and

draw together leaflets of the in situ valve.

59. (Previously Presented) The method of claim 58, wherein positioning the device includes extending at least a portion of at least one elongate member within a chamber of the heart and anchoring an end of the at least one elongate member to one of a wall surrounding the heart chamber and a papillary muscle in the chamber.

60. (Previously Presented) The method of claim 59, wherein positioning the device further includes anchoring another end of the elongate member proximate the annulus of the valve.

61. (Previously Presented) The method of claim 59, wherein the at least one elongate member includes a tension member.

62. (Previously Presented) The method of claim 59, wherein the at least one elongate member includes a plurality of elongate members.

63. (Previously Presented) The method of claim 58, wherein the valve is a mitral valve.

64. (Previously Presented) The method of claim 58, wherein the heart structure includes a wall of a heart chamber.

65. (Previously Presented) The method of claim 58, wherein altering the geometry of the heart structure includes drawing together leaflets of the valve so as to promote closure of the valve.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

66. (Previously Presented) The method of claim 58, wherein altering the geometry of the heart structure includes altering at least one of a transverse radial dimension and vertical dimension of a heart chamber during at least a portion of the cardiac cycle.

67. (Previously Presented) The method of claim 66, wherein altering at least one of the transverse radial dimension and vertical dimension includes reducing at least one of the transverse radial dimension and vertical dimension.

68. (Previously Presented) The method of claim 58, wherein altering the position of at least one papillary muscle associated with the valve includes drawing the papillary muscle toward the valve.

69. (Previously Presented) The method of claim 58, wherein the structure of the heart valve includes leaflets, chordae, an annulus, and papillary muscles.

70. (Currently Amended) A method for improving cardiac function, comprising:
placing a first member relative to a heart chamber and spaced from an in situ valve to alter the cross-sectional shape of the chamber; and
placing a second member relative to an in situ valve of the heart chamber to assist in apposition of leaflets of the in situ valve.

71. (Previously Presented) The method of claim 70, wherein each of the first and second members includes a portion placed transverse the chamber.

72. (Previously Presented) The method of claim 70, wherein each of the first and second members includes an elongate member.

73. (Previously Presented) The method of claim 72, wherein the placing each of the first and second elongate members includes securing the elongate members relative to the heart chamber with anchors configured to engage each end of the elongate members.

74. (Previously Presented) The method of claim 73, wherein the securing the second elongate member includes engaging one of the anchors with an exterior surface of the heart wall.

75. (Previously Presented) The method of claim 70, wherein the heart chamber is a left ventricle.

76. (Previously Presented) The method of claim 70, wherein the valve is a mitral valve.

77. (Previously Presented) The method of claim 70, wherein the placing the second member includes reducing a radius of an annulus of the valve.

78. (Previously Presented) The method of claim 70, wherein the placing the second member includes placing the second member so as to alter a position of at least one papillary muscle of the heart chamber.

79. (Previously Presented) The method of claim 70, wherein the placing the first member includes placing an elongate member transverse the heart chamber and through a wall surrounding the heart chamber at substantially opposite locations on the heart wall.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER ^{LLP}

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

80-82. (Canceled)

THIS PAGE BLANK (USPTO)

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com